REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claims 1-10 and 12-24 are currently pending in the present application, Claims 1-10 and 12-23 having been amended by way of the present amendment, and Claims 11 and 25 having been canceled without prejudice or disclaimer. No new matter has been added.[1]

In the outstanding Office Action, the title was objected to; Claim 4 was objected to; Claim 24 was rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter; Claims 7-10 and 24 were rejected under 35 U.S.C. § 112, second paragraph; Claims 1-5, 12-13, and 16-17 were rejected under 35 U.S.C. § 102(e) as anticipated by Hameleers, et al. (PCT Pub. No. WO 01/82558, hereinafter "Hameleers"); Claim 6 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hameleers in view of Balog, et al. (U.S. Pat. Pub. No. 2002/0022453, hereinafter "Balog"); Claims 7-8 and 14 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hameleers in view of Kisor (U.S. Pat. No. 6,104,720, hereinafter "Kisor"); Claims 9-10 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hameleers in view of Fant (U.S. Pat. No. 6,496,509, hereinafter "Fant"); Claims 11, 15, and 21-25 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hameleers in view of Lo, et al. (U.S. Pat. No. 6,324,178, hereinafter "Lo"); Claim 18 was rejected under 35 U.S.C. § 103(a) as unpatentable over Hameleers in view of Wellig (U.S. Pat. No. 6,505,034, hereinafter "Wellig"); and Claims 19-20 were rejected under 35 U.S.C. § 103(a) as unpatentable over Hameleers in view of Lappeteläinen, et al. (U.S. Pat. No. 6,671,495, hereinafter "Lappeteläinen").

Regarding the objection to the title, the title has been amended. Thus, it is respectfully submitted the objection to the title has been overcome.

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[1] Support for the amendments to Claims 1 and 13 may be found at least in the specification on page 10, lines 31-32; page 11, lines 18-20, page 7, lines 17-20, in Fig. 3 (reference number 25 and 26), in Fig. 5 (reference numbers 44 and 45); and in original Claim 11.

Regarding the objection to Claim 4, Applicants respectfully submit that the phrase objected to on page 2 of the Office Action was deleted in the Preliminary Amendment filed on January 7, 2005. Accordingly, the objection to Claim 4 should be withdrawn.

Regarding the rejection of Claim 24 under 35 U.S.C. § 101, Claim 24 has been amended to recite a computer readable storage medium encoded with a computer program configured to cause an information processing apparatus to execute a method, in view of M.P.E.P. § 2106, and thus define statutory subject matter. Thus, it is respectfully submitted that the 35 U.S.C. § 101 rejection has been overcome

Regarding the 35 U.S.C. §112, second paragraph, rejection, Claims 7-10 and 24 have been amended to address the issues set forth on page 3 of the Official Action. Thus, the 35 U.S.C. §112, second paragraph, rejection is believed to have been overcome.

Regarding the rejection of Claim 11 (which is now relevant to amended, independent Claims 1, 13, 21, and 24) under 35 U.S.C. § 103(a) as being unpatentable over Hameleers in view of Lo, Applicants respectfully traverse the rejection.

The outstanding Office Action concedes on page 14 that Hameleers does not disclose the previous Claim 11 feature of "said content-specific convergence layers comprise a common part, which segments data packets of said external traffic into a multitude of corresponding data packets of said device network's internal protocol, and which reassembles data packets of said device network's internal protocol into corresponding data packets of the respective external traffic," and relies on Lo to overcome this deficiency. Specifically, the Office Action cites col. 6, lines 5-15 of Lo as allegedly teaching this feature.

Turning to the applied art, Lo is directed to a method for data transfers between domains of different data formats. However, Lo merely describes the transfer of data from one node to another node. According to Lo, this transfer is performed via the bridge circuit which disassembles and reassembles the frame-data packet, whereby disassembling and

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reassembling means the encapsulating of the data payload according to the protocol, as described in col. 6, lines 3-15 if <u>Lo</u>.

Applicants respectfully submit that the "disassembling and reassembling" in <u>Lo</u> is different from the claimed "segmenting and reassembling" data packets as defined in Claim 1 for the following reason. <u>Lo</u> disassembles and reassembles one frame. Thus, it follows that one frame generates another frame. On the contrary, in the claimed invention, an external data packet is segmented into a plurality of data packets. Indeed, in <u>Lo</u>, there is no technical basis for finding the functionality of the segmentation of a data packet of said external traffic into a plurality of corresponding data packets of a device network's internal protocol and, therefore, the common part, as it is defined in Claim 1.

Consequently, <u>Lo</u> does not disclose or suggest "the at least two content-specific convergence layers include a common part adapted to segment a data packet of said external traffic into a plurality of corresponding data packets of a device network's internal protocol, and adapted to reassemble data packets of said device network's internal protocol into corresponding data packets of the respective external traffic," as recited in amended Claim 1.

Further, as <u>Lo</u> does not disclose at least two content-specific convergence layers, it follows that <u>Lo</u> cannot disclose or suggest at least two content-specific convergence layers including a common part, as defined in Claim 1. Indeed, as described by way of non-limiting example on page 7, lines 24-29, of the specification, one advantage of the claimed "common part" is a simplified structure of the content-specific convergence layers and a simplified implementation of additional content-specific convergence layers. Thus, with <u>Lo</u> being silent regarding a common part, <u>Lo</u> cannot provide the function provided by the device recited in Claim 1.

Accordingly, <u>Lo</u> also does not disclose or suggest "the common part is adapted to segment data packets of said external traffic and reassemble data packets of said device

network's internal protocol for each of said at least two content-specific convergence layers,"
as recited in amended Claim 1.

M.P.E.P. § 2143.03 requires, to establish a case of *prima facie* obviousness, that all
words in a claim must be considered in judging the patentability of the claim against the prior
art. Further, M.P.E.P. § 2123 I states that a reference may be relied on for all it would have
reasonably suggested to one having ordinary skill in the art, including non-preferred
embodiments.

Hence, Applicants respectfully submit that Hameleers and Lo, either separately or
combined, do not disclose or reasonably suggest "the at least two content-specific
convergence layers include a common part adapted to segment a data packet of said external
traffic into a plurality of corresponding data packets of a device network's internal protocol,
and adapted to reassemble data packets of said device network's internal protocol into
corresponding data packets of the respective external traffic," **and** "the common part is
adapted to segment data packets of said external traffic and reassemble data packets of said
device network's internal protocol for each of said at least two content-specific convergence
layers," as recited in amended Claim 1. Consequently, Hameleers and Lo do not disclose or
suggest all of the elements in amended Claim 1.

Therefore, independent Claim 1 (and Claims 2-12 dependent therefrom) is believed to
patentably define over Hameleers and Lo.

Claims 13, 21, and 24, while differing in scope and statutory class from Claim 1,
patentably define over Hameleers and Lo for substantially the same reasons as Claim 1.
Accordingly, it is respectfully submitted that Hameleers and Lo do not anticipate or make
obvious the features of Claims 13, 21, and 24. Therefore, independent Claims 13, 21, and 24
(and the claims dependent therefrom) are believed to patentably define over Hameleers and
Lo.

To the extent the Examiner feels <u>Kisor</u> (as applied to Claim 14) is relevant to amended Claim 13, the following arguments are provided.

The Office Action asserted on page 11 that "application 50" in Fig. 2 of <u>Kisor</u> corresponds to the original Claim 14 feature of "that content-specific connections are set up and released between the network devices of said device network, whereby a content-specific connection is set up between a content-specific convergence layers of a first network device which supports a certain content type, and a respective content-specific convergence layer of a second network device which supports the same content type." The Office Action thereafter concludes that if a first network device has first convergence layer, it would be obvious that there is necessarily a second network device that also has a convergence layer. Applicants respectfully disagree.

<u>Kisor</u> states that the reference number 50 is an application or a plurality of applications.[2] Specifically, the only characteristic of the application 50 in the <u>Kisor</u> reference is that the application 50 may generate a plurality of data types.[3] While the Examiner concludes that the arrows in Fig. 2 of <u>Kisor</u> represent separate channels, such a feature is not, in fact, disclosed in <u>Kisor</u>. Indeed, <u>Kisor</u> merely states that 52, 54, 56, and 58 are data and **not** that the data are sent via content-specific connections.[4]

Hence, <u>Kisor</u> does not disclose or suggest "a second network device comprising: at least two further content-specific convergence layers adapted to exchange network traffic with said first network device of said device network via content-specific connections," as recited in Claim 13.

With further regard to independent Claims 21 and 24, Applicants respectfully submit that <u>Lo</u> does not disclose the claimed steps of (1) segmenting by a first device; (2) transmitting from a first device to a second device; and (3) reassembling by the second

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[2] See col. 2, line 45-57, of <u>Kisor</u>.
[3] See col. 2, line 51-52, of <u>Kisor</u>.
[4] See col. 2, line 66, of <u>Kisor</u>.

device, for the additional reason that <u>Lo</u> only describes that the data packet is segmented by the bridge circuit, then it is reassembled by the same bridge circuit, and then the reassembled data packet is transmitted to a second device.[5] Therefore, in <u>Lo</u>, the *segmented* data packets are transmitted and not the *reassembled* data packets, which allows for a different communication network structure in that the data are transferred from a first device to a second device in form of the segmented data packets, whereas the reassembling is conducted by the target device.

Thus, <u>Lo</u> does not disclose or suggest "segmenting a data packet of the external traffic into a plurality of corresponding data packets of network traffic of an internal protocol, using a common part of convergence layers of said first network device," "transmitting said data packets of the network traffic of the internal protocol to a second network device via content-specific connections, wherein said content-specific connections are adapted to the requirements of the respective content type," and "reassembling with the second network device said data packets of the device network's internal protocol into corresponding data packets of a second external traffic, using a further common part of further convergence layers of the second network device" as recited in amended Claims 21 and 24. Accordingly, Claims 21 and 24 further patentably defines over <u>Lo</u> for this additional reason.

With regard to the rejection of Claim 6 as unpatentable over <u>Hameleers</u> in view of <u>Balog</u>, it is noted that Claim 6 is dependent from Claim 1, and thus is believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that <u>Balog</u> does not cure any of the above-noted deficiencies of <u>Hameleers</u>. Accordingly, it is respectfully submitted that Claim 6 is patentable over <u>Hameleers</u> and <u>Balog</u>.

With regard to the rejection of Claims 7-8 and 14 as unpatentable over <u>Hameleers</u> in view of <u>Kisor</u>, it is noted that Claims 7-8 and 14 are dependent from Claim 1, and thus are

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[5] See col. 6, lines 5-15 of <u>Lo</u>.

believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Kisor does not cure any of the above-noted deficiencies of Hameleers. Accordingly, it is respectfully submitted that Claims 7-8 and 14 are patentable over Hameleers and Kisor.

With regard to the rejection of Claims 9-10 as unpatentable over Hameleers in view of Fant, it is noted that Claims 9-10 are dependent from Claim 1, and thus are believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Fant does not cure any of the above-noted deficiencies of Hameleers. Accordingly, it is respectfully submitted that Claims 9-10 are patentable over Hameleers and Fant.

With regard to the rejection of Claims 15 and 21-24 as unpatentable over Hameleers in view of Lo, it is noted that Claims 15 and 21-24 are dependent from Claim 1, and thus are believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Lo does not cure any of the above-noted deficiencies of Hameleers. Accordingly, it is respectfully submitted that Claims 15 and 21-24 are patentable over Hameleers and Lo.

With regard to the rejection of Claim 18 as unpatentable over Hameleers in view of Wellig, it is noted that Claim 18 is dependent from Claim 1, and thus is believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Wellig does not cure any of the above-noted deficiencies of Hameleers. Accordingly, it is respectfully submitted that Claim 18 is patentable over Hameleers and Wellig.

With regard to the rejection of Claims 19-20 as unpatentable over Hameleers in view of Lappeteläinen, it is noted that Claims 19-20 are dependent from Claim 1, and thus are believed to be patentable for at least the reasons discussed above. Further, it is respectfully submitted that Lappeteläinen does not cure any of the above-noted deficiencies of Hameleers.

Accordingly, it is respectfully submitted that Claims 19-20 are patentable over <u>Hameleers</u>

and <u>Lappeteläinen</u>.

Consequently, in view of the present amendment and in light of the above

discussions, the outstanding grounds for rejection are believed to have been overcome. The

application as amended herewith is believed to be in condition for formal allowance. An

early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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